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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,230	06/12/2001	Kenneth C. Budka	2925-0551P	2080
30594	7590	01/12/2005	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			PICH, PONNOREAY	
P.O. BOX 8910			ART UNIT	
RESTON, VA 20195			PAPER NUMBER	

2135

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/878,230	BUDKA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ponnoreay Pich	2135	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

Claims 1-18 have been examined and are pending.

#### ***Drawings***

The drawings are objected to because as it is drawn currently, in step S20, even if a ZAP command is sent, it looks like step S14 will be executed no matter what. It is unclear from the applicant's specification whether this should occur or not. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

The disclosure is objected to because of the following informalities:

1. On page 1, line 29 the applicant states that "wireless data router 12".  
  
This should instead be "wireless data router 14" to be consistent with the applicant's drawings.
2. On page 2, line 11, the applicant discloses a "mobile system." It is unclear to the examiner if the applicant means for this to be the same thing as the "mobile station" of Fig. 1. The examiner assumes that to be the case.
3. On page 2, line 19, the applicant discloses the "wireless data network 14". This should instead say "wireless data router 14" so as to be consistent with the applicant's drawing and earlier use of the term.
4. On page 6, second paragraph, the applicant explains Fig. 3 as it relates to how step S14 can be reached. It is not clear to the examiner from reading the paragraph and looking at Fig. 3 if the applicant meant for step S14 to be reached from step S20 even if a ZAP command is sent. It makes no sense to the examiner why registration should continue as the rogue mobile station has just been told to stop registration attempts.  
  
However, the examiner will assume in the course of examining this case that the applicant meant for step S14 to be reached even if a ZAP command was sent.
5. On page 7, lines 1-4. The sentence, which begins: "More than . . . registration failure threshold registration failures during a period of time . . . " makes no sense at all to the examiner.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Claim 2 recites the limitation "The method of claim 2" in line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets this as broadly as reasonable and assumes the applicant meant to say "The method of claim 1".
2. Claim 4 recites the limitation "The method of claim 4" in line 1. There is insufficient antecedent basis for this limitation in the claim. The examiner interprets this as broadly as reasonable and assumes the applicant meant to say "The method of claim 1".
3. Claim 4 recites the limitation "the registration process" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 7 recites the limitation "the sending step" in line 3. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 9 recites the limitation "the continuing step" in line 1. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 12 recites the limitation "the registration process" in lines 2 and 3.

There is insufficient antecedent basis for this limitation in the claim.

7. Claim 13 recites the limitation "the incremented failure count" in lines 3 and 4 and the limitation "the predetermined threshold" in line 4. There is insufficient antecedent basis for these limitations in the claim.

8. Claim 14 recites the limitation "the sending step" in line 3. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 16 recites the limitation "the processing step" in line 1. There is insufficient antecedent basis for this limitation in the claim.

10. Any claim not specifically addressed were rejected by virtue of dependency.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 8-10, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al (U.S. 6,088,451) in view of Asokan et al (U.S. 2001/0017856).

1. Claim 1: He et al disclose a method for protecting use of resources in a network comprising, processing a request for network resource based on a failure count accessed using the identifier for the user equipment, the failure count indicating a number of times the user equipment has been denied

registration (col 17, line 13-17 and col 26, lines 40-52). He et al does not explicitly disclose receiving a communication address request for a temporary communication address from user equipment, the communication address request including an identifier of the user equipment. However, a request by user equipment for a communication address has been known to one of ordinary skill in the art at the time of the applicant's invention. It is also known by one of ordinary skill that the request can include the user equipment's identifier, which is used for authenticating whether or not the user equipment has rights to access a network resource. Further, requests of such nature are also explicitly disclosed by Asokan et al (p1, paragraph 0009 and p9, claim 11). A communication address is itself a network resource. One of ordinary skill would be motivated, when receiving any sort of request for use of resources in a network, to not only require an equipment identifier be sent with the request, but to also process the request based on a failure count using the identifier as this would prevent a brute force authentication attack on the network by the user equipment. The examiner has interpreted authentication attempts to be the same thing as registration attempts.

2. Claim 2: He et al disclose the method of claim 1, wherein the processing step comprises:
  - a. Accessing the failure count for the user equipment based on the identifier (col 17, line 13-17 and col 26, lines 40-52).

- b. Ignoring the communication address request if the failure count exceeds a predetermined threshold (col 17, line 13-17 and col 26, lines 40-52).

The examiner has interpreted an identifier as any sort of user id, password, serial number, network account, or MAC address associated with the user equipment which uniquely identifies the user equipment.

- 3. Claim 3: He et al disclose the method of claim 2, wherein the processing step comprises continuing with a registration process if the failure count does not exceed a predetermined threshold (col 17, line 13-17 and col 26, lines 40-52).
- 4. Claim 4: He et al disclose the method of claim 1, further comprising incrementing the failure count for the user equipment if during a registration process the user equipment is not authenticated (col 17, line 13-17 and col 26, lines 40-52). It is inherent that since He et al discloses the number of failures can reach a certain predetermined threshold that the failure count must increase when the user equipment fails to authenticate properly.
- 5. Claim 9 and 16: He et al disclose the method of claim 3 and claim 1 respectively, wherein a processing step continues a registration process if a failure count does not exist for the user equipment (col 26, lines 40-52). He et al disclosed that it is possible for the user equipment to not be found in a registration database, which means there would also be no failure count for that user equipment.
- 6. Claims 10 and 17: He et al disclose the method of claim 9 and claim 16 respectively, further comprising:



- a. Incrementing the failure count for the user equipment if a failure count was accessed and if during the registration process the user equipment is not authenticated (col 26, lines 40-52).
  - b. Initializing a failure count for the user equipment to an initial value if a failure count does not exist for the user equipment and if during the registration process the user equipment is not authenticated (col 26, lines 40-52).
7. Claim 12: He et al disclose the method of claim 1, further comprising incrementing the failure count for the user equipment if during a registration process the user equipment is not authenticated (col 26, lines 40-52).
8. Claims 8 and 15: He et al disclose the method of claim 4 and claim 12 respectively, further comprising decrementing the failure count after a predetermined period of time (col 17, lines 13-17). The examiner has interpreted the time for an examination of the account to be complete to be a predetermined period of time. In this case, it is inherent that since He et al disclose the account being only temporarily disabled that the failure count must be decremented at some point in time. Further, the examiner would like to note that one of ordinary skill in the art at the time of the applicant's invention would most likely recognize the advantage of automatically decrementing the failure count after a certain predetermined time period as this would allow a legitimate user of the account to be able to log on without an administrator's intervention after their account is temporarily disabled

either by them or someone else. For a large enough user or equipment base in a network, if the administrator had to get involved with every single investigation before valid accounts are re-enabled, it could turn into a very time consuming task for the administrator.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over He et al (U.S. 6,088,451) in view of Asokan et al (U.S. 2001/0017856) and Holmes et al (U.S. 6,230,009).

1. Claim 11: He et al do not disclose a method claim 10, wherein the user equipment is a mobile station in one of a data network and a wireless voice network. However, Holmes et al disclose a communication network consisting of a mobile station in a data and wireless voice network (col 1, lines 23-26). One of ordinary skill in the art would be motivated to implement a security feature in the communication network disclosed by Holmes et al which keeps track of a registration failure count of a user equipment as this would make the network more secure and protect resources in the network.

Claims 5, 7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al (U.S. 6,088,451) in view of Asokan et al (U.S. 2001/0017856) and Nawrocki (U.S. 6,256,116).

1. Claims 5 and 13: He et al do not disclose the method of claim 4 and claim 12 respectively, further comprising sending a message to the user equipment instructing the user equipment not to attempt registration for a predetermined period of time if the incremented failure count equals or exceeds the

predetermined threshold. However, sending a message to a user instructing him/her to stop trying to authenticate/register for a predetermined amount of time after a predetermined failure-to-authenticate count has been reached is known to one of ordinary skill in the art at the time of the applicant's invention. Further, Nawrocki discloses a request-to-stop transmission attempts being sent by a facsimile-blocking device to a facsimile machine (col 1, lines, 35-44). One of ordinary skill would recognize that it would be advantageous to send a request-to-stop transmission for a predetermined amount of time message to the user equipment whose registration attempts has reached or exceeded a predetermined failure threshold as it would save network resources if the user equipment followed the message's instruction. The examiner has interpreted any authentication or registration attempts by the user equipment as a type of transmission by the user equipment.

2. Claims 7 and 14: He et al do not disclose a method of claim 5 and claim 13 respectively, further comprising decrementing the failure count after a predetermined period of time has elapsed from a sending step. However, He et al disclose decrementing the failure count after a predetermined period of time (col 17, lines 13-17). It would make sense to start the count down of when to decrement the failure count from the point in which the message was sent as this would most likely coincide with the time when the failure threshold was reached. The examiner would like to note that there is no way to guarantee that the user equipment will follow the instruction to not try to

register again for a certain time period as the user equipment could be outside the control of the network with which it is trying to register.

Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over He et al (U.S. 6,088,451) in view of Asokan et al (U.S. 2001/0017856), Holmes et al (U.S. 6,230,009), and Nawrocki (U.S. 6,256,116).

1. Claims 6 and 18: He et al do not disclose a method of claim 5 and claim 1 respectively wherein the user equipment is a mobile station in one of a data network and a wireless voice network. However, Holmes et al disclose a communication network consisting of a mobile station in a data and wireless voice network (col 1, lines 23-26). One of ordinary skill in the art would be motivated to implement a security feature in the communication network disclosed by Holmes et al which keeps track of a registration failure count of a user equipment as this would make the network more secure and protect resources in the network.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Tabuki (U.S. 5,706,427) discloses a network authentication method.
2. Kaashoek et al (U.S. 2002/0035683) discloses an architecture to thwart a denial of service attack.
3. Boyd et al (U.S. 6,317,787) discloses a system and method for analyzing web traffic data.

4. Bernhard et al (U.S. 6,275,942) discloses a system for automatic response to an intrusion detected on a network.
5. Reiche (U.S. 6,092,196) discloses a distributed remote user authentication system.
6. Green et al (U.S. 6,003,084) discloses a network proxy.
7. Stockwell et al (U.S. 5,950,195) discloses a system and method for regulating network traffic through a firewall.
8. Coleman (U.S. 5,717,756) discloses a method for preventing unauthorized access to a network using session keys.
9. Feuerstein et al (U.S. 2002/0083341) discloses a security component for a computing device to analyze a request for resource to determine if the request poses a risk to the resource and/or to the network.
10. DeLude (U.S. 6,223,985) discloses the use of a failure counter and timer for authentication.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ponnoreay Pich whose telephone number is 571-272-7962. The examiner can normally be reached on 8:00am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2135

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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